FIGURE 1

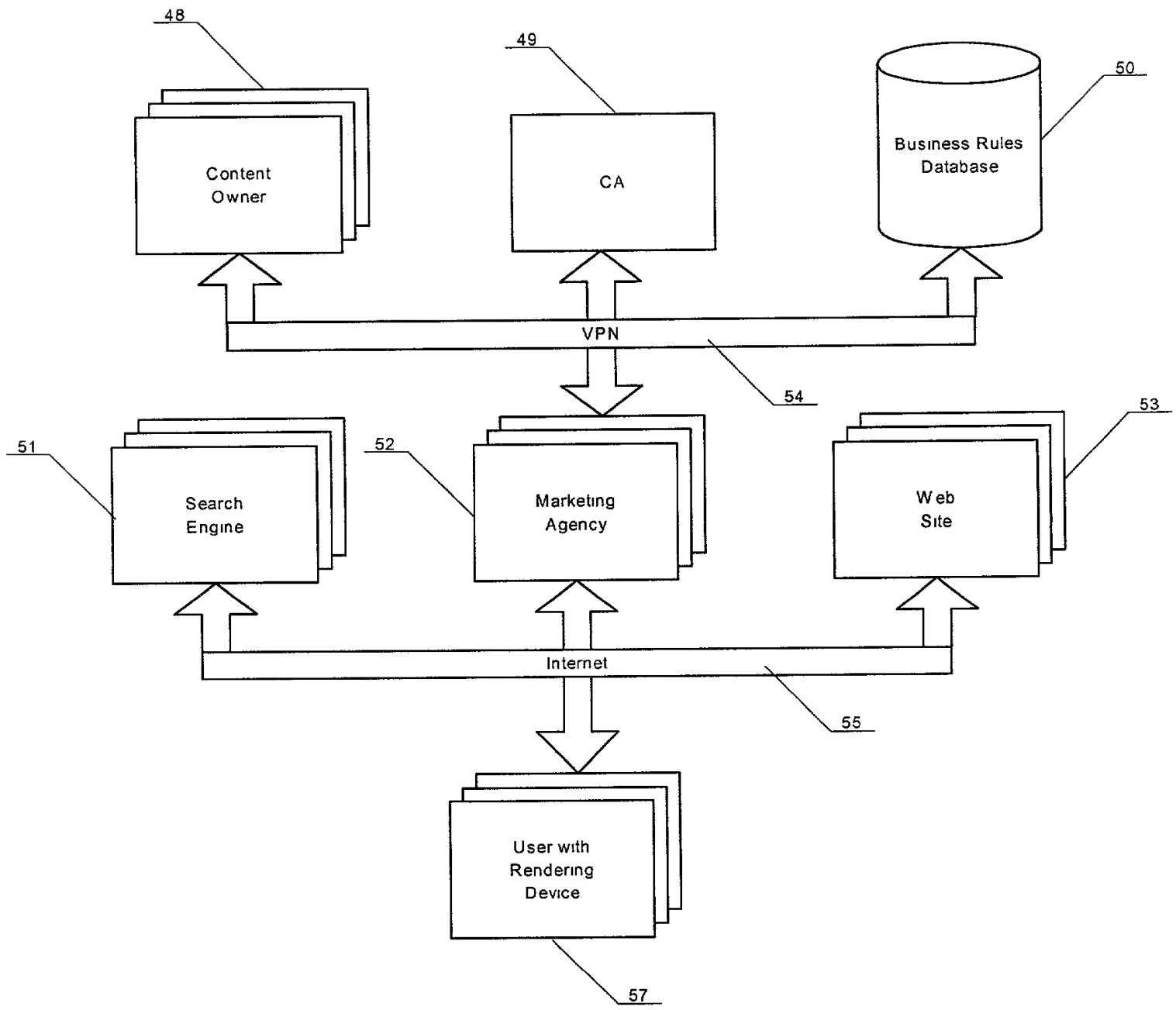
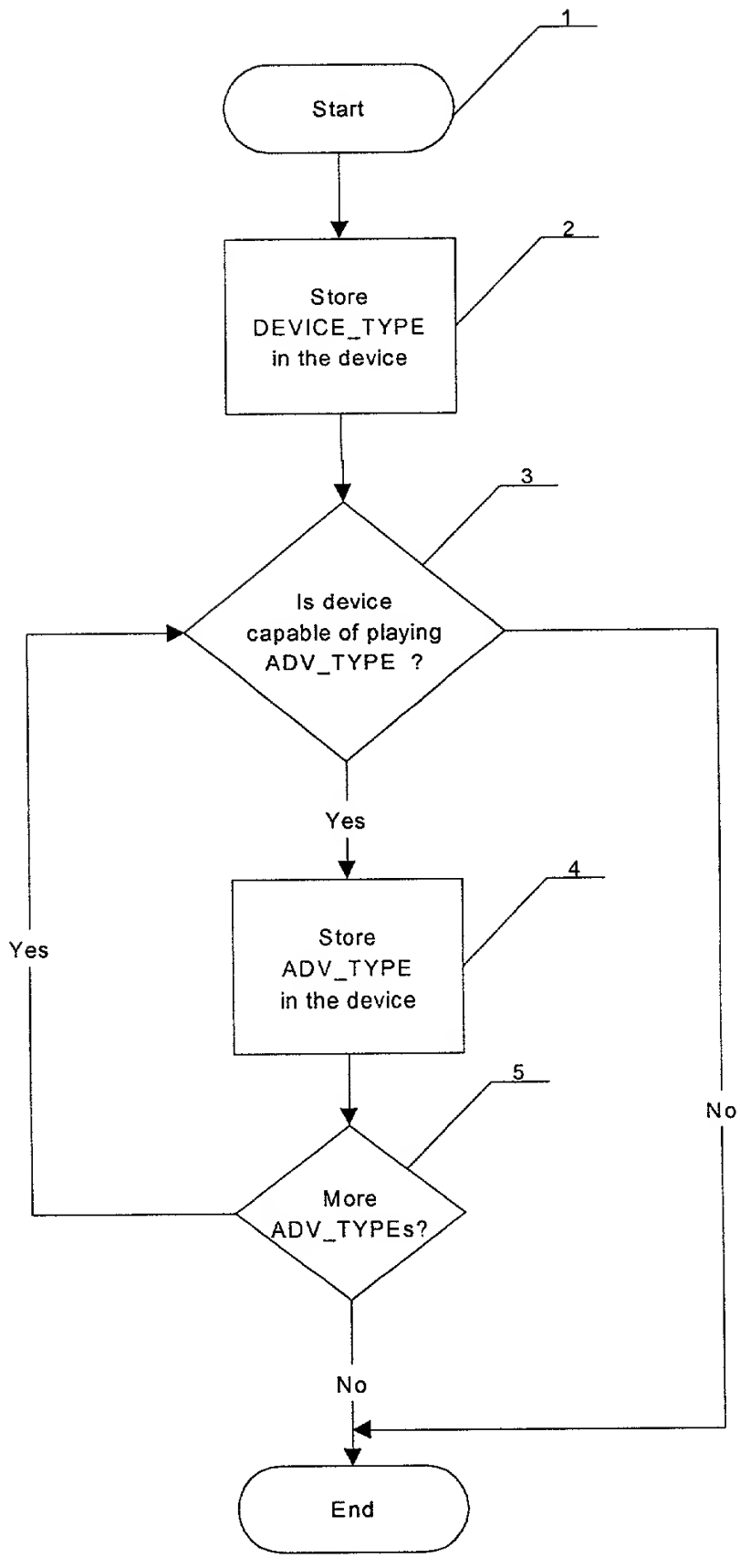

48
49
50
Content Owner
CA
Business Rules Database
VPN
54
53
51
52
Search Engine
Marketing Agency
Web Site
Internet
55
User with Rendering Device
57

FIGURE 2


1
Start
2
Store
DEVICE_TYPE
in the device
3
Is device
capable of playing
ADV_TYPE ?
Yes
4
Store
ADV_TYPE
in the device
5
More
ADV_TYPEs?
Yes
No
No
End

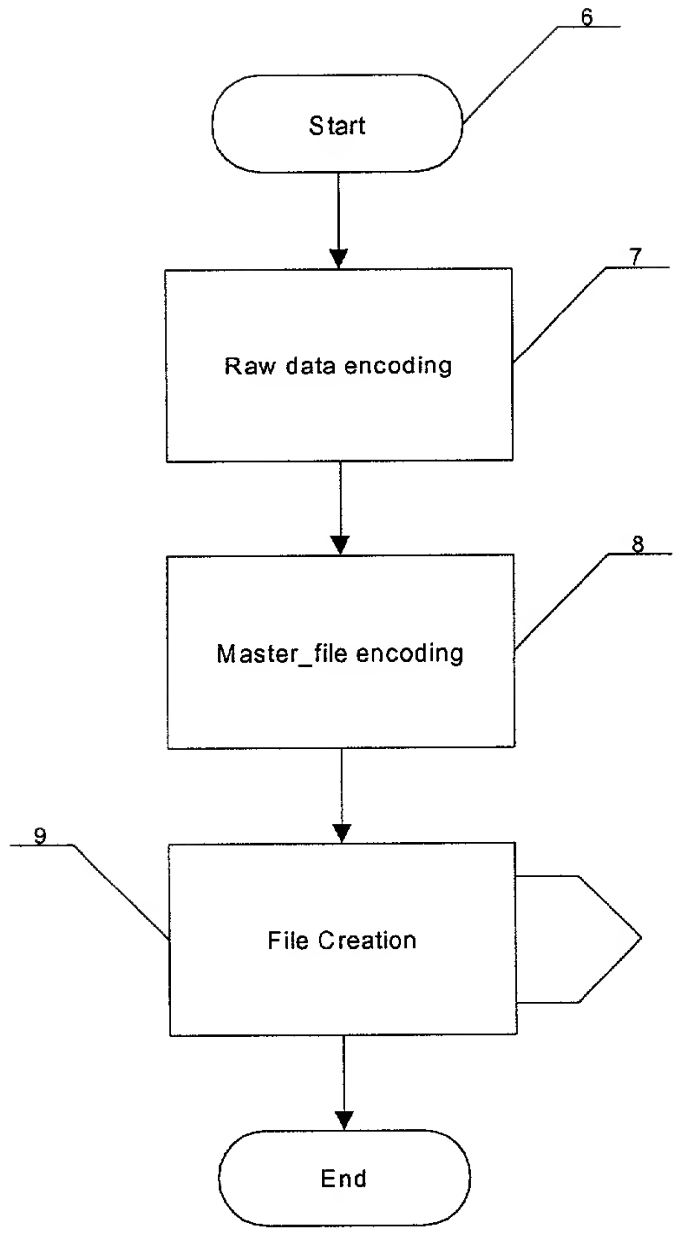

6
Start
7
Raw data encoding
8
Master_file encoding
9
File Creation
End

FIGURE 3

FIGURE 4

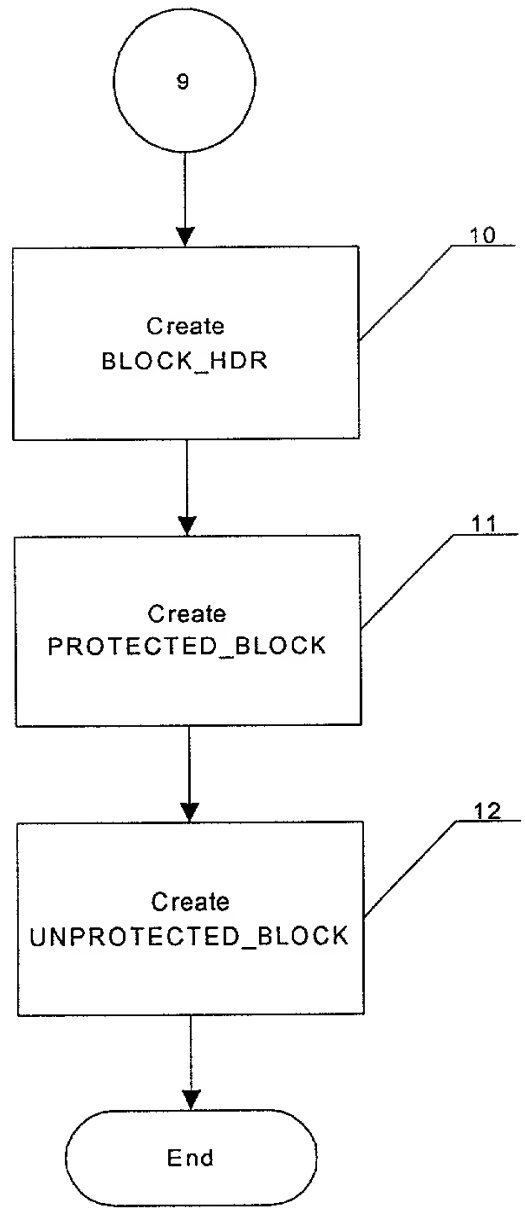

9
10
Create
BLOCK_HDR
11
Create
PROTECTED_BLOCK
12
Create
UNPROTECTED_BLOCK
End

Figure 5

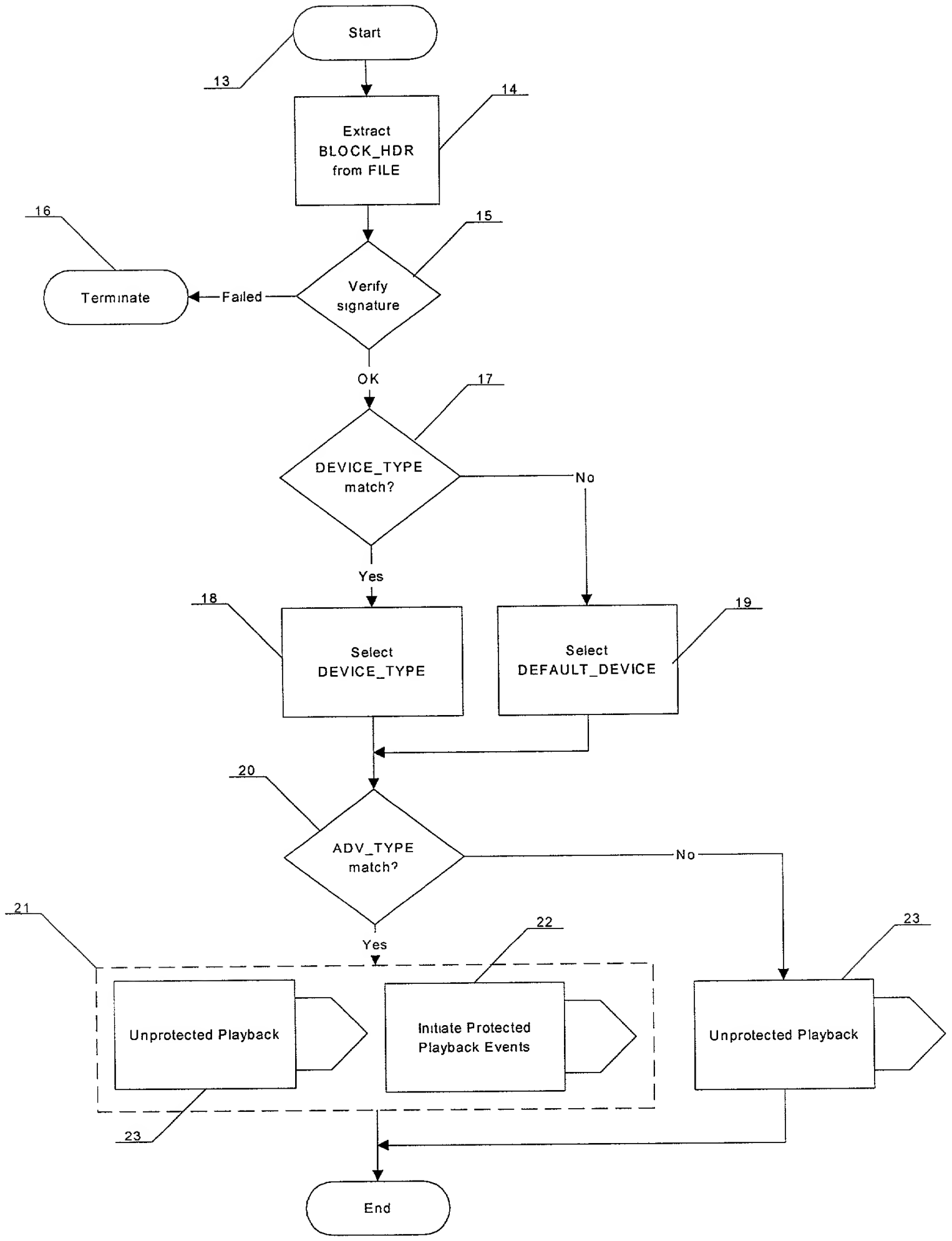

Start
13
Extract BLOCK_HDR from FILE
14
16
15
Terminate
Failed
Verify signature
OK
17
DEVICE_TYPE match?
No
Yes
18
Select DEVICE_TYPE
Select DEFAULT_DEVICE
19
20
ADV_TYPE match?
No
21
Yes
22
23
Unprotected Playback
Initiate Protected Playback Events
Unprotected Playback
23
End

FIGURE 6

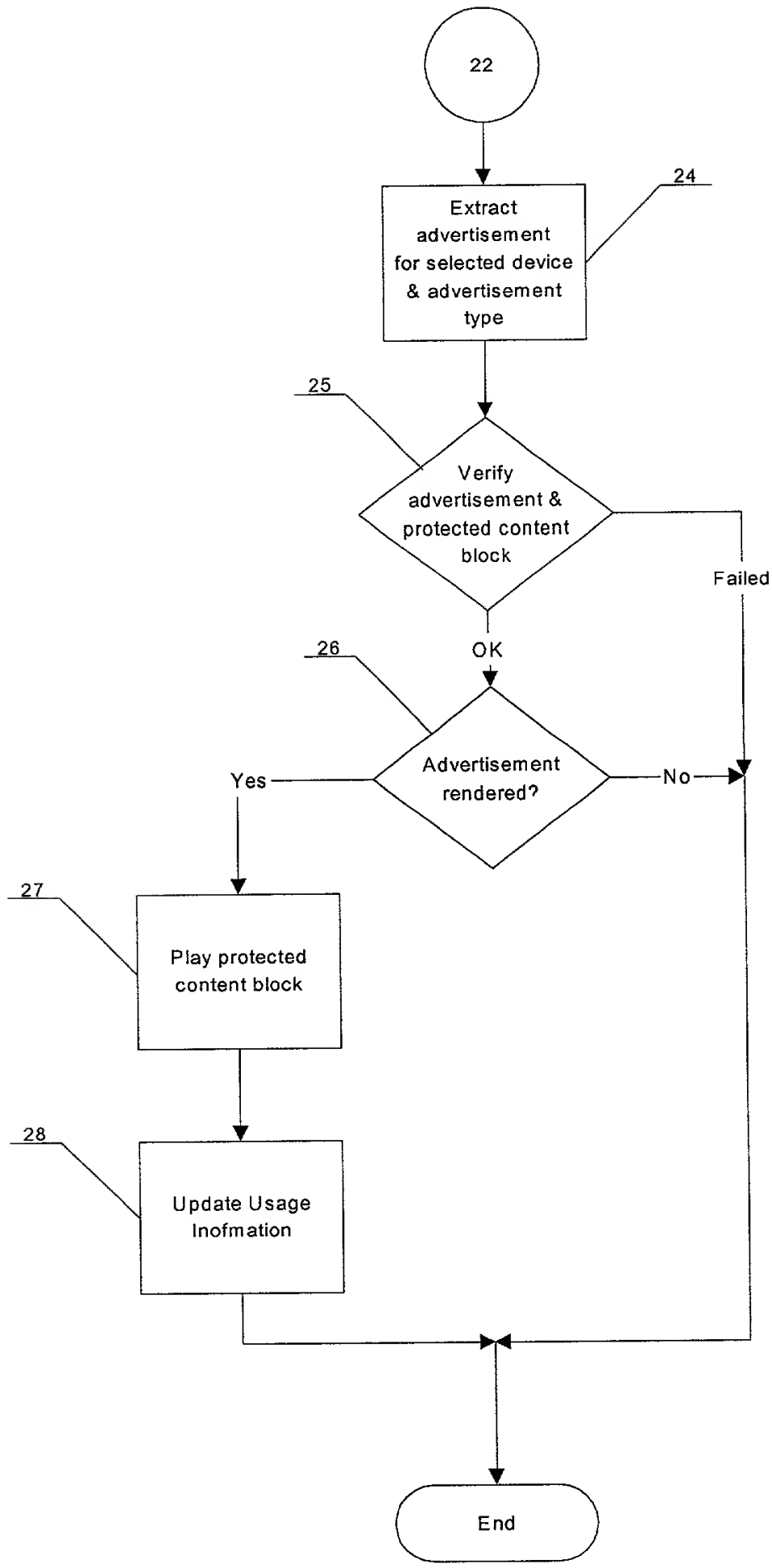
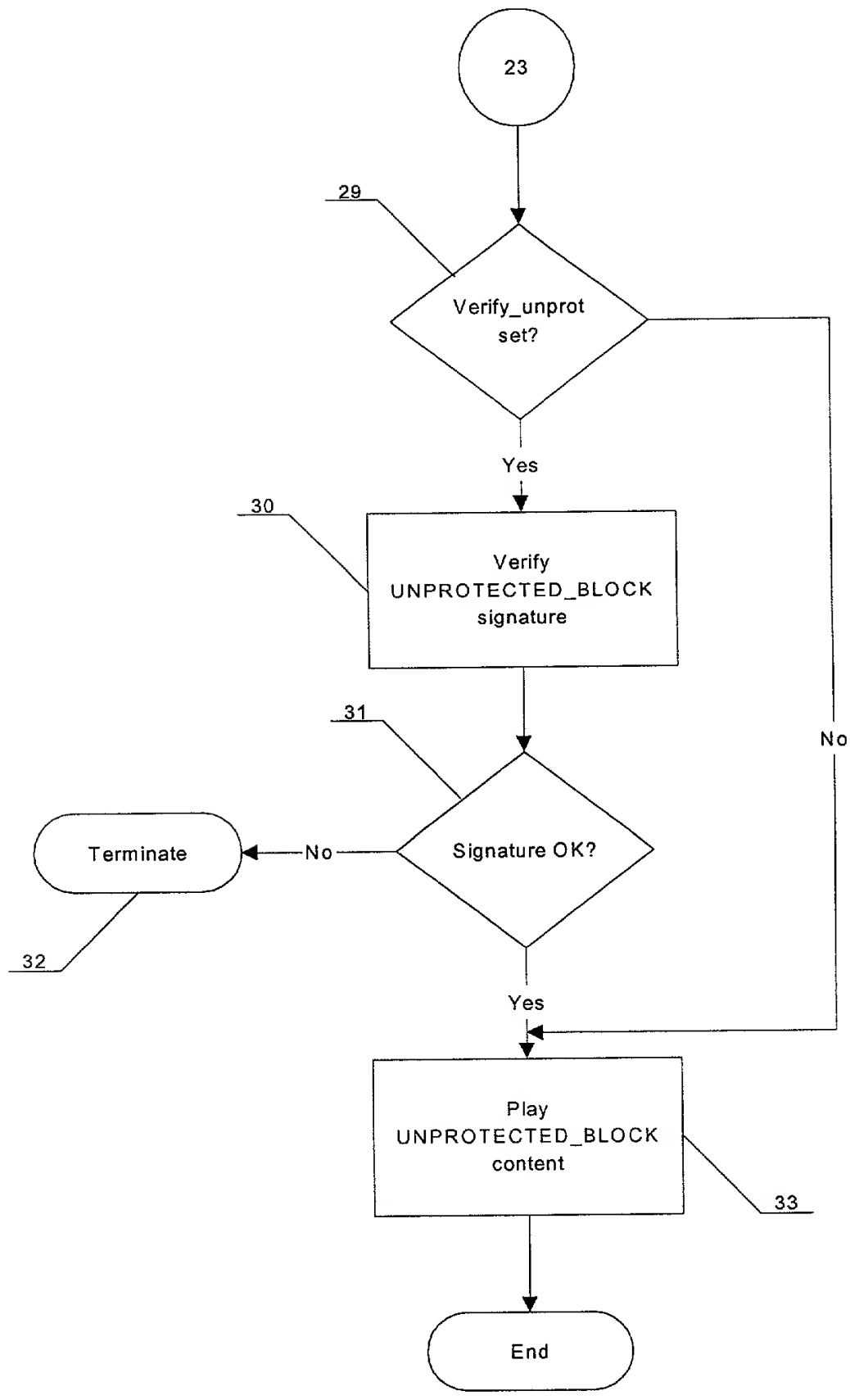

22
24
Extract advertisement for selected device & advertisement type
25
Verify advertisement & protected content block
Failed
OK
26
Advertisement rendered?
Yes
No
27
Play protected content block
28
Update Usage Inofmation
End

FIGURE 7


23
29
Verify_unprot set?
Yes
No
30
Verify UNPROTECTED_BLOCK signature
31
Signature OK?
No
Terminate
32
Yes
Play UNPROTECTED_BLOCK content
33
End

```
(34)
MASTER_FILE:= {
    BLOCK_HDR               block_hdr;
    PROTECTED_BLOCK         protected_block;
    UNPROTECTED_BLOCK       unprotected_block;
};

(35)
FILE := {
    BLOCK_HDR               block_hdr;
    PROTECTED_BLOCK         protected_block;
    UNPROTECTED_BLOCK       unprotected_block;
};

(36)
BLOCK_HDR := {
    ID                      master_file_id;
    ID                      file_id;
    SEQUENCE OF {
        DEVICE_INFO         devices;
    }
    DEFAULT_DEVICE          default_device;
    ID                      clip_id;
    FLAG                    verify_unprot;
    DIGITAL_SIGNATURE       sig;
};

(37)
DEVICE_INFO := {
    DEVICE_TYPE             type; (37a)
    SEQUENCE OF {
        ADV_GROUP           adv_group;
    }
};

(38)
ADV_GROUP := {
    ADV_TYPE                type; (38a)
    SEQUENCE OF {
        ADV_REF             adv_ref;
    }
}

(39)
ADV_REF := {
    ID                      id;
    REQ_LEVEL               level;
};

(40)
REQ_LEVEL := ONE OF {
    REQUIRED, OPTIONAL
};

(41)
DEFAULT_DEVICE := {
    SEQUENCE OF {
        ADV_GROUP           adv_group;
    }
}
```

```
(42)
PROTECTED_BLOCK := {
    SEQUENCE OF {
        ADVERTISEMENT       advertisement;
    }
    OPTIONAL ORG_CLIP       org_clip;
};

(43)
ADVERTISEMENT := {
    ADV_INFO                adv_info;
    DIGITAL_SIGNATURE       sig;
};

(44)
ADV_INFO := {
    ID                      id;
    ADV_TYPE                type;
    ENCRYPTION_TYPE         encryption;
    KEY_DATA                key_data;
    CONTENT                 content;
};

(45)
ORG_CLIP := {
    ORG_CLIP_INFO           org_clip_info;
    DIGITAL_SIGNATURE       sig;
}

(46)
ORG_CLIP_INFO := {
    ID                      id;
    TIME                    begin; (46a)
    ENCRYPTION_TYPE         encryption;
    KEY_DATA                key_data;
    CONTENT                 content;
};

(47)
UNPROTECTED_BLOCK := {
    CONTENT                 content;
    DIGITAL_SIGNATURE       sig,
};
```

FIGURE 8